



## Effects of global change on human health

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<b>Book:</b>	Analyses of the Effects of Global Change on Human Health and Welfare and Human Systems. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research
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### Abstract:

This chapter of SAP 4.6 updates the 2000 Health Sector Assessment. It also examines adaptation strategies that have been or are expected to be developed by the public health community in response to the challenges and opportunities posed by climate change. The first section of this chapter focuses on climate-related impacts on human morbidity and mortality from extreme weather, vector-, water- and foodborne diseases, and changes in air quality. For each health endpoint, the assessment addresses the potential impacts, populations that are particularly vulnerable, and research and data gaps that, if bridged, would allow significant advances in future assessments of the health impacts of global change. The assessment includes research published from 2001 through early 2007 in the United States or in Canada, Europe, and Australia, where results may provide insights for U.S. populations. This chapter summarizes the current burden of climate-sensitive health determinants and outcomes for the United States before assessing the potential health impacts of climate change. Two types of studies are assessed: (1) studies that increase our understanding of the associations between weather variables and health outcomes raise possible concerns about the impacts of a changing climate, and (2) studies that project the burden of health outcomes using scenarios of socioeconomic and climate change.

### Source:

<https://www.humphreyfellowship.org/system/files/Effects%20of%20Global%20Change%20on%20Human%20Health.pdf>

## Resource Description

### Climate Scenario : ▣

specification of climate scenario (set of assumptions about future states related to climate)

Special Report on Emissions Scenarios (SRES)

**Special Report on Emissions Scenarios (SRES) Scenario:** SRES A2, SRES B2

### Early Warning System: ▣

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

### Exposure : ▣

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Extreme Weather Event, Food/Water Quality, Food/Water Quality, Food/Water

# Climate Change and Human Health Literature Portal

Security, Precipitation, Sea Level Rise, Temperature

**Air Pollution:** Allergens, Interaction with Temperature, Ozone, Particulate Matter

**Extreme Weather Event:** Drought, Flooding, Hurricanes/Cyclones, Landslides, Wildfires, Other Extreme Event

**Extreme Weather Event (other):** Windstorms

**Food/Water Quality:** Pathogen, Pathogen, Other Water Quality Issue

**Water Quality (other):** Water temperature

**Temperature:** Extreme Cold, Extreme Heat, Fluctuations

**Geographic Feature:** ☐

resource focuses on specific type of geography

Ocean/Coastal, Rural, Urban

**Geographic Location:** ☐

resource focuses on specific location

United States

**Health Co-Benefit/Co-Harm (Adaption/Mitigation):** ☐

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

**Health Impact:** ☐

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Diabetes/Obesity, Infectious Disease, Mental Health/Stress, Morbidity/Mortality, Respiratory Effect, Other Health Impact

**Cardiovascular Effect:** Heart Attack, Other Cardiovascular Effect

**Cardiovascular Disease (other):** Arrhythmias

**Infectious Disease:** Airborne Disease, Foodborne/Waterborne Disease, Vectorborne Disease, Zoonotic Disease

**Airborne Disease:** Coccidioidomycosis (Valley Fever), Influenza

**Foodborne/Waterborne Disease:** Campylobacteriosis, Cholera, Cryptosporidiosis, E. coli, General Foodborne/Waterborne Disease, Giardiasis, Leptospirosis, Norovirus, Rotavirus, Salmonellosis, Vibrios

**Foodborne/Waterborne Disease (other):** Gastroenteritis, general; Naegleria fowleri; Enteroviruses

**Vectorborne Disease:** Flea-borne Disease, General Vectorborne, Mosquito-borne Disease, Tick-borne Disease

**Flea-borne Disease:** Murine Typhus

**Mosquito-borne Disease:** Dengue, Malaria, Viral Encephalitis, Viral Encephalitis, West Nile Virus, Yellow Fever

**Tick-borne Disease:** Ehrlichiosis, Lyme Disease

**Zoonotic Disease:** General Zoonotic Disease, Hantavirus Pulmonary Syndrome, Rabies

**Mental Health Effect/Stress:** Mood Disorder

**Respiratory Effect:** Asthma, Upper Respiratory Allergy, Other Respiratory Effect

**Respiratory Condition (other) :** Chronic bronchitis

**Other Health Impact:** Hospital admissions

**Medical Community Engagement:** ☐

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

**Mitigation/Adaptation:** ☐

mitigation or adaptation strategy is a focus of resource

Adaptation

**Model/Methodology:** ☐

type of model used or methodology development is a focus of resource

Exposure Change Prediction, Outcome Change Prediction

**Population of Concern:** A focus of content

**Population of Concern:** ☐

populations at particular risk or vulnerability to climate change impacts

Children, Elderly, Low Socioeconomic Status, Pregnant Women, Workers

**Other Vulnerable Population:** People with little education; Urban populations; Disabled; Pre-existing medical conditions; Socially isolated; Immunocompromised

**Resource Type:** ☐

format or standard characteristic of resource

Review

**Timescale:** ☐

time period studied

Long-Term (>50 years)

**Vulnerability/Impact Assessment:** ☐

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content